



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,949	07/19/2005	Guy Zancella	262749US6PCT	7345
22850	7590	05/12/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
AFTERGUT, JEFF H				
ART UNIT		PAPER NUMBER		
1791				
NOTIFICATION DATE		DELIVERY MODE		
05/12/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/519,949

Applicant(s)

ZANELLA ET AL.

Examiner

Jeff H. Aftergut

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) 23-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/ISD)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 12-29-04

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 16-22 in the reply filed on 3-24-08 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 16 and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by German Patent 19852159.

German Patent '159 suggested that those skilled in the art at the time the invention was made would have formed a hybrid fiber yarn material from 50% polypropylene and 50% natural fiber to form a hybrid spun yarn. The reference taught that the hybrid yarn was fed into an extrusion device wherein it was subjected to heat within the extrusion nozzle 6 which included as part of an extrusion device which supplied molten plastic to the commingled filaments from extruder 2. the reference taught that additional extruded plastic material was added to the melted commingled filaments and that the assembly was fed through a shaping nozzle 6. after being further provided with the thermoplastic material, the commingled and heated filaments were subjected to a winding operation wherein the so formed band was wound upon a mandrel 4. the

Art Unit: 1791

applicant is referred to the machine translation and in particular the discussion found regarding to Example 1 on page 2 of the translation.

Regarding claim 19, note that the filaments are brought into the extrusion die as a single layer of filaments and are heated to above the melting point of the plastic material in the blended fiber material. regarding claim 20, the strip was clearly heated during the feeding of the strip into the extruder and up to the die to at least the melting point of the material used in the fiber hybrid thread material. Regarding claim 21, note that the reference taught the use of 50% flax fiber and 50% polypropylene in the example and one skilled in the art would have understood such would have varied dependent upon the finished product being manufactured. Regarding claim 22, note that the strip was impregnated with an extruder and then fed to the die at the exit of the extruder.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent 19852159 in view of Saint Gobain (the internet publication dated July 30, 2001, from the website <http://www.twintex.com/fabrication-processes/tw-process.html>, herein after simply referred to as Saint Gobain).

German Patent '159 suggested that those skilled in the art at the time the invention was made would have incorporated a hybrid thermoplastic/natural reinforcing fiber material in an extrusion operation wherein the impregnated material was subsequently subjected to a filament winding process. The reference suggested that the reinforcing fiber useful not only included flax fibers but also glass fiber reinforcement. The applicant is advised that those skilled in the art at the time the invention was made would have known to incorporate a hybrid blend of glass and polypropylene fiber material in the manufacture of the wound assembly wherein in the extrusion operation one preheated the hybrid commingled material prior to entrance into the die. The reference taught that those skilled in the art would have employed this extrusion operation with the commingled yarn in order to provide a function (color or texture) to the reinforcement as well as increase the stiffness as reduce thermal expansion of the commingled fiber material. The reference taught that the commingled material was heated with IR heating means prior to being received by the co extrusion device which included an exit nozzle therein. the reference did not teach that those skilled in the art would have filament wound this product, however German Patent '159 suggested filament winding subsequent to the extrusion operation and German Patent '159 suggested that glass would have been a useful reinforcing material in the operation therein. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the techniques of Saint Gobain in the process of German Patent '159 in order to filament wind with a glass reinforcing fiber and polypropylene blend.

With respect to claim 17, Saint Gobain suggested a strip formed from glass and polypropylene filaments which are commingled together. Regarding claim 18, while the references do not express a void volume of the strip, one skilled in the art would have desired to reduce the amount of void in the strip to a minimal amount in order to achieve a finished product with a minimal amount of voids. regarding claim 19, the reference to Saint Gobain clearly suggested that those skilled in the art would have preheated the assembly in order to facilitate suitable impregnation with the additional molten plastic material in the extruder. with respect to claim 20, note that German patent '159 as well as Saint Gobain suggested that one skilled in the art would have provided for heating above the melting point of the strip material and additionally recognize that one skilled in the art of filament winding would have understood that the material would have been heated at the point of lay down as suggested by Saint Gobain. Regarding claim 21, note that the references suggested a 50-50 blend of the reinforcement and matrix fibers in the assembly. regarding claim 22, note both references suggested that the material would have been subjected to an extruder die at the exit of the extruder in order to shape the tape prior to filament winding the same.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:30-4:00 pm.

Art Unit: 1791

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff H. Aftergut/
Primary Examiner
Art Unit 1791

JHA
May 6, 2008